UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
HARLEY, JASON A

ART UNIT	PAPER NUMBER
2468	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 August 2010*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-18* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *20 December 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

This communication is in response to the application filed on 8/20/10 in which claims 1,

5, 10, 14 have been amended and claims 1-18 have been presented for examination.

Response to Arguments

1.   Applicant's arguments with respect to claims have been considered but are moot

in view of the new ground(s) of rejection.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/20/10

has been entered.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 4, 10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Owens et al. U.S. PG Pub No. (2003/0039244) in view of Sundaresan et al.

(2002/0101881).

As to claim 1, Owens teaches an Ethernet Digital Subscriber Line Access Multiplexer

(DSLAM) for providing dynamic service selection and end-user configuration of service

bindings in a digital communication system, said Ethernet DSLAM comprising: means

for receiving login credentials and a service request from an end-user device; means for

authenticating the login credentials through an authentication server (Owens, par 0050,

0051). The paragraph shows a point to point protocol Ethernet network using DSLAM to

provide a service having a means for receiving a user identifier or passwords through a

server for authentication.

Owens show configuring the Ethernet DSLAM to provide an advance service

binding corresponding to the requested service (par 0045), utilizing a plurality of

attributes received from the authentication server including an identification of an

access network for the requested service, and an identification of a Permanent Virtual

Circuit (PVC) on a local DSL loop associated with the end-user device (par 0005, 0006,

0016, 0017, 0025, 0047, 0062). The paragraphs show identifying a user's identification

of a local area network and PVC on DSL, and utilizing attributes such as identification of

an access network for the requested service, and an identification of a Permanent

Virtual Circuit (PVC).

Owens also show means for training a bridging network terminal (NT) having a

plurality of PVCs to utilize the identified PVC for sending upstream traffic from the end-

user terminal to the Ethernet DSLAM, said training means including means for sending

initial downstream traffic from the Ethernet DSLAM to the end-user device utilizing the

identified PVC (par 0006, 0012-0017, 0040). The paragraphs show bridging a terminal

to PVCs to utilize upstream and downstream traffic.

Owens fails to show utilizing a plurality of attributes received from the

authentication server wherein by configuring the Ethernet DSLAM to provide the

advanced service binding a Broadband Remote Access Server (BRAS) is no longer

needed.

In an analogous art Sundaresan show wherein by configuring the Ethernet

DSLAM to provide the advanced service binding a Broadband Remote Access Server

(BRAS) is no longer needed (Sundaresan, par 0014, 0018, 0020, 0023). The

paragraphs show the DSLAM provides the advanced service binding.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Owens and Sundaresan DSLAM providing the service prevents a single point of failure, poor downward scalability and poor upward scalability.

As to claim 4, Owens and Sundaresan convey the Ethernet DSLAM of claim 1, wherein the means for authenticating includes a RADIUS client that communicates with an external RADIUS authentication server (Owens, par 0047, 0048). The paragraph shows the authentication servers use Radius for communication which use shown to separate or as a single server.

As to claim 10, Claim 10 is a claim to a method to carry out the DSLAM of claim 1. Therefore claim 10 is rejected under the same rationale set forth in claim 1.

As to claim 13, Claim 13 is a claim to a method to carry out the DSLAM of claim 4. Therefore claim 13 is rejected under the same rationale set forth in claim 4.

Claim Rejections - 35 USC § 103

5.   Claims 2, 3, 5-9, 11, 12, 14-18 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Owens et al. U.S. PG Pub No. (2003/0039244), Sundaresan et al.

(2002/0101881) in view of Holmgren et al. U.S. Patent No. (7,277,442).

As to claim 2, Owens and Sundaresan describe the Ethernet DSLAM of claim 1,

wherein the end-user device has a Media Access Control (MAC) address (par 0052).

Owens show where the device has a MAC address using DSLAM, and Owens fails to

show the requested service is accessed through a Service Virtual Local Area Network

(S-VLAN), and the Ethernet DSLAM includes means for mapping the S-VLAN for the

requested service to the MAC address for the end-user device.

In analogous art Holmgren show the requested service is accessed through a

Service Virtual Local Area Network (S-VLAN), and the Ethernet includes means for

mapping the S-VLAN for the requested service to the address for the end-user device

(Holmgren, col 1, ln 6-9, col 4, ln 39-50, col 5, ln 45-50). It is shown where a service is

accessed though an S-VLAN and where the Ethernet network includes mapping a

service to an address.

At the time of the invention it would have been obvious to one of ordinary skill in

the art to combine the invention it would have been obvious to one of ordinary skill in

the art to combine the teachings of Owens, Sundaresan and Holmgren because a way

of conserving mapping assignments for internetworking Ethernet and ATM networks by

mapping VLAN identifiers to PVCs.

As to claim 3, Owens and Sundaresan present the Ethernet DSLAM of claim 1,

wherein the means for receiving login credentials and a service request from an end-

user device includes an Ethernet DSLAM (par 0051). The paragraph shows a point to

point protocol Ethernet network using DSLAM. Owens fails to show User Virtual Local

Area Network (U-VLAN) through which the Ethernet communicates with the end-user

device, and the requested service is accessed through a Service Virtual Local Area

Network (S-VLAN), and the Ethernet DSLAM includes means for mapping the S-VLAN

for the requested service to the U-VLAN for the end- user device.

In an analogous art Holmgren show User Virtual Local Area Network (U-VLAN)

through which the Ethernet communicates with the end-user device, and the requested

service is accessed through a Service Virtual Local Area Network (S-VLAN), and the

Ethernet DSLAM includes means for mapping the S-VLAN for the requested service to

the U-VLAN for the end- user device (Holmgren, col 5, ln 39-55). The column shows a

customer VLAN which the Ethernet communicates with to map SVLAN to the customer

VLAN.

At the time of the invention it would have been obvious to one of ordinary skill in

the art to combine the invention it would have been obvious to one of ordinary skill in

the art to combine the teachings of Owens, Sundaresan and Holmgren because a way

of conserving mapping assignments for internetworking Ethernet and ATM networks by

mapping VLAN identifiers to PVCs.

As to claim 5, Owens illustrates an Ethernet Digital Subscriber Line Access Multiplexer

(DSLAM) or providing dynamic service selection and end-user configuration of service

bindings in a digital communication system, said Ethernet DSLAM comprising: a

plurality of subscriber ports for receiving login credentials and service requests from

end-user devices, and for communicating data traffic to and from the end-user devices,

wherein an identified subscriber port communicates with an identified end-user device

(Owens, par 0049-0051). The paragraph shows a point to point protocol Ethernet

network using DSLAM to provide a service having a means for receiving a user

identifier or passwords through a server for authentication.

Owens show a RADIUS client that sends login credentials and a service request

from the identified end-user device to an external RADIUS server for authentication and

receives a plurality of attributes from the external RADIUS server, and utilizes the

attributes to configure the Ethernet DSLAM to provide an advance service binding

corresponding to the requested service, and an identification of a Permanent Virtual

Circuit (PVC) on a local DSL loop associated with the end-user device a Service

Selection Controller that receives the attributes from the RADIUS client (par 0005, 0006,

0016, 0017, 0025, 0047, 0062). From the applicant's specification the service selection

controller is located in side the DLSAM. The paragraph shows the authentication

servers use Radius for communication and configuring and communicating with an

Ethernet DSLAM to provide identification for PVCs on DSL.

Owens fails to show a traffic mapper that maps data traffic between a plurality of

Service Virtual Local Area Networks (S-VLANs) and the subscriber ports; said attributes

including an identification of an S-VLAN through which the requested service is

accessed and sends mapping control information to the traffic mapper, thereby enabling

the traffic mapper to establish a service binding between the identified end-user device

and the S- VLAN through which the requested service is accessed.

In an analogous art Holmgren show a traffic mapper that maps data traffic

between a plurality of Service Virtual Local Area Networks (S-VLANs) and the

subscriber ports; said attributes including an identification of an S-VLAN through which

the requested service is accessed and sends mapping control information to the traffic

mapper, thereby enabling the traffic mapper to establish a service binding between the

identified end-user device and the S- VLAN through which the requested service is

accessed (Holmgren, col 1, ln 6-34, col 4, ln 39-50, col 5, ln 45-50). It is shown where a

service is accessed though an S-VLAN, which is also shown to communicate through

an Ethernet network to access Vans on a per port basis, and it is shown where the

Ethernet network includes mapping a service to an address.

At the time of the invention it would have been obvious to one of ordinary skill in

the art to combine the invention it would have been obvious to one of ordinary skill in

the art to combine the teachings of Owens and Holmgren because a way of conserving

mapping assignments for internetworking Ethernet and ATM networks by mapping

VLAN identifiers to PVCs.

Owens and Holmgren fails to show utilizing a plurality of attributes received from

the authentication server wherein by configuring the Ethernet DSLAM to provide the

advanced service binding a Broadband Remote Access Server (BRAS) is no longer

needed.

In an analogous art Sundaresan show wherein by configuring the Ethernet

DSLAM to provide the advanced service binding a Broadband Remote Access Server

(BRAS) is no longer needed (Sundaresan, par 0014, 0018, 0020, 0023) the paragraphs

show the DSLAM provides the advanced service binding.

At the time of the invention it would have been obvious to one of ordinary skill in

the art to combine the teachings of Owens, Holmgren, and Sundaresan DSLAM

providing the service prevents a single point of failure, poor downward scalability and

poor upward scalability.

As to claim 6, Owens, Sundaresan, and Holmgren define the Ethernet DSLAM of claim

5, wherein the service binding is established utilizing the IEEE802. I x protocol. From

applicants specification IEEE802. I x is an integrated part of Windows XP operating

system (Owens, par 0015). The paragraph shows using Windows operating system.

As to claim 7, Owens, Sundaresan, and Holmgren create the Ethernet DSLAM of claim

5, wherein the service binding is established utilizing the Point-to-Point Protocol over

Ethernet (PPPoE) protocol (Owens, par 0008). It is shown utilizing Point-to-Point

Protocol over Ethernet.

As to claim 8, Owens, Sundaresan, and Holmgren expose the Ethernet DSLAM of

claim 5, further comprising a Dynamic Host Configuration Protocol (DHCP) server that

answers DHCP requests sent by the identified end-user device prior to establishment of

the service binding, said DHCP server sending a temporary configuration and a short

lease time to the identified end- user device (par 0019, 0088, 0090). The paragraph

shows using a DHCP server establishing a temporary configuration and having a lease

time to authenticate a user.

As to claim 9, Owens, Sundaresan, and Holmgren explain the Ethernet DSLAM of

claim 8, wherein the DHCP server ignores DHCP requests sent by the identified end-

user device after establishment of the service binding, thereby forcing the end-user

device to broadcast a DHCP discover message which is passed on to a second DHCP

server in the through which the requested service is accessed (Owens, par 0055, 0063,

0065). The paragraphs show sending a broadcast of discover message by a DHCP

server.

Owens fails to show using SVLAN. In analogous art Holmgren shows using

SVLAN (Holmgren, col 4, ln 39-50, col 5, ln 45-50). It is shown where a service is

accessed though an S-VLAN

At the time of the invention it would have been obvious to one of ordinary skill in

the art to combine the invention it would have been obvious to one of ordinary skill in

the art to combine the teachings of Owens, Sundaresan, and Holmgren because a way

of conserving mapping assignments for internetworking Ethernet and ATM networks by

mapping VLAN identifiers to PVCs.

As to claim 11, Claim 11 is a claim to a method to carry out the DSLAM of claim 2.

Therefore claim 11 is rejected under the same rationale set forth in claim 2.

As to claim 12, Claim 12 is a claim to a method to carry out the DSLAM of claim 3.

Therefore claim 12 is rejected under the same rationale set forth in claim 3.

As to claim 14, Claim 14 is a claim to a method to carry out the DSLAM of claim 5.

Therefore claim 14 is rejected under the same rationale set forth in claim 5.

As to claim 15, Claim 15 is a claim to a method to carry out the DSLAM of claim 6.

Therefore claim 15 is rejected under the same rationale set forth in claim 6.

As to claim 16, Claim 16 is a claim to a method to carry out the DSLAM of claim 7.

Therefore claim 16 is rejected under the same rationale set forth in claim 7.

As to claim 17, Claim 17 is a claim to a method to carry out the DSLAM of claim 8.

Therefore claim 17 is rejected under the same rationale set forth in claim 8.

As to claim 18, Owens, Sundaresan, and Holmgren demonstrate the method of claim

14, further comprising the steps of: receiving by the Ethernet DSLAM, a Dynamic Host

Configuration Protocol (DHCP) request from the identified end-user device; determining

by the Ethernet DSLAM, whether the service binding has been established; upon

determining that the service binding has not been established, sending an answer to the

end-user device from a DHCP server in the Ethernet DSLAM (Owens, fig 1, par 0019,

0051, 0052, 0074). The paragraphs show using a DSLAM server to serve and receive

DHCP request and determining that the service whether or not service has been

established.

Owens show wherein the answer includes a temporary configuration and a short

lease time; and upon determining that the service binding has been established,

ignoring the DHCP request, thereby forcing the end-user device to broadcast a DHCP

discover message which is passed on to a second DHCP server through which the

requested service is accessed (par 0019, 0055, 0063, 0065, 0088, 0090). The

paragraph shows using a DHCP server establishing a temporary configuration and

having a lease time to authenticate a user, and sending a broadcast of discover

message by a DHCP server

Owens fails to show using SVLAN. In analogous art Holmgren shows using

SVLAN (Holmgren, col 4, ln 39-50, col 5, ln 45-50). It is shown where a service is

accessed though an S-VLAN

At the time of the invention it would have been obvious to one of ordinary skill in

the art to combine the invention it would have been obvious to one of ordinary skill in

the art to combine the teachings of Owens, Sundaresan, and Holmgren because a way

of conserving mapping assignments for internetworking Ethernet and ATM networks by

mapping VLAN identifiers to PVCs.

Response to Arguments

1) In the Applicant's previous response, it was argued that the claimed invention

   has a different purpose than Owens. Owens's main objective is to automate the

   configuration of the DSL modem and eliminate manual configuration tasks

   previously performed by the end user. Owens still has a conventional DSLAM in

   the process as well as a conventional Broadband Remote Access Server (BRAS)

   for configuring the advanced service binding. The Applicant's claimed invention,

   on the other hand, modifies the DSLAM to provide the advanced service binding

(between the IP client and the service). This function was previously performed in the BRAS. Thus, the BRAS is no longer needed for configuration of the service bindings. This eliminates several problems with the BRAS-based service binding procedure, which Owens does not solve.

2) The Examiner did not give any weight to the Applicant's argument because the claims do not expressly recite that the claimed DSLAM eliminates the need for the BRAS. The Applicant has amended independent claims 1, 5, 10, and 14 to recite that the claimed DSLAM eliminates the need for the BRAS.

3) As noted in the Applicant's previous response, Owens does not disclose or suggest this feature since Owens still has a conventional DSLAM in the process as well as a conventional BRAS for configuring the advanced service binding. Therefore, the withdrawal of the § 102 rejection and the allowance of amended independent claims 1 and 10, and dependent claims 4 and 13 are respectfully requested.

Examiner disagrees but in an analogous art Sundaresan show wherein by configuring the Ethernet DSLAM to provide the advanced service binding a Broadband Remote Access Server (BRAS) is no longer needed (Sundaresan, par 0014, 0018, 0020, 0023). The paragraphs show the DSLAM provides the advanced service binding.

4) Like claims 1 and 10 above, independent claims 5 and 14 have been amended to clarify that the DSLAM is configured to provide the advanced service binding corresponding to the requested service, and to recite that the claimed DSLAM eliminates the need for the BRAS. Like Owens, Holmgren does not disclose or suggest such a DSLAM or method. Therefore, the withdrawal of the § 103 rejection and the allowance of amended independent claims 5 and 14 are respectfully requested.

5) Claims 2-3, 6-9, 11-12, and 15-18 depend from amended base claims 1, 5, 10, and 14, respectively, and recite further limitations in combination with the novel and unobvious elements of the amended base claims. Therefore, the allowance of claims 2- 3, 6-9, 11-12, and 15-18 is respectfully requested.

Examiner respectfully disagrees please refer to claim rejections and above response to arguments. Claims 1 and 10 are rejected by Owens in view of Sundaresan.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Harley whose telephone number is (571)270-5435. The examiner can normally be reached on Monday- Friday 7:00am-4:30pm est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nathan Flynn can be reached on (571)272-1915. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JH

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